

CLAIMS

What is claimed is:

Claim 1

1 A telemetry system for use in test firing a guided missile,  
2 where said missile has a plurality of configurations distinguished  
3 by a unique fuze and guidance control section combination,  
4 each of said configurations producing a plurality of characteristic  
5 telemetry signals reflecting the operation of said missile  
6 configuration and requiring correspondingly unique signal  
7 processing prior to being transmitted from said telemetry  
8 system, comprising:

9 common signal conditioning means, for receiving and  
10 processing said characteristic telemetry signals from  
11 the one of said unique fuze and guidance control section  
12 combinations utilized in a missile firing and for  
13 producing processed signals which reflect the operation  
14 of said utilized combination, said common signal  
15 conditioning means compatible for use with any of  
16 said plurality of missile configurations;

17 interface means, connecting said signal conditioning  
18 means with the one of said fuze and guidance control  
19 sections utilized in a missile firing, for receiving

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20 and selectively routing said characteristic telemetry  
21 signals produced by said one utilized combination  
22 to predetermined locations in said signal conditioning  
23 means;

24 a commutator having said processed telemetry signals  
25 produced by said signal conditioning means as an input,  
26 said commutator producing a discrete sequence of signals  
27 in response to receipt of said processed telemetry  
28 signals, said discrete sequence of signals reflecting  
29 the operation of said utilized fuze and guidance section  
30 combination; and

31 means for transmitting said discrete sequence of signals  
32 produced by said commutator to a location remote from  
33 said missile.

Claim 2

1 The telemetry system according to claim 1 wherein said  
2 interface means comprises a plurality of programming connector  
3 cables equal in number to said plurality of missile configurations,  
4 each of said plurality of connector cables being compatible  
5 for use with and providing unique routing for the telemetry  
6 signals characteristic of and produced by one of said fuze  
7 and guidance section combinations, the appropriate one

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8       of said plurality of programming connector cables being  
9       selected for use in a missile firing in accordance with  
10      the one of said plurality of missile configurations fired.

Claim 3

1       The telemetry system according to claim 2 wherein said  
2       signal conditioning means is a printed circuit card assembly  
3       connected to a first connector by a wire bundle and wherein  
4       each of said programming connector cables includes a connector  
5       compatible for mating with said first connector, the mating  
6       of said first connector with the compatible connector of  
7       a connector cable completing a plurality of electrical  
8       paths between a utilized fuze and guidance section and  
9       said circuit card assembly, a different portion of said  
10      electrical paths being utilized dependent on the one of  
11      said plurality of connector cables with which said first  
12      connector is mated, said circuit card including a plurality  
13      of subcircuits, a predetermined portion of said subcircuits  
14      being dedicated subcircuits utilized in conjunction with  
15      only one of said missile configurations and a predetermined  
16      portion of said subcircuits being common subcircuits utilized  
17      in conjunction with more than one of said missile configurations,  
18      each of said subcircuits receiving, in use, a telemetric  
19      input signal along at least one of said electrical paths

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20 and processsing said received signal to reflect a facet  
21 of operation of one of said fuze and guidance section  
22 combinations.

Claim 4

1 The telemetry system according to claim 3 further comprising  
2 a mounting frame, an on-board energy source and a power  
3 supply, said commutator, energy source, power supply, signal  
4 conditioning means and means for transmitting said commutator  
5 produced signals all being mounted on said mounting frame  
6 and said commutator, said energy source, said power supply  
7 and said means for transmitting all being connected to  
8 said signal conditioning by pin connectors.

Claim 5

1 The telemetry system according to claim 4 wherein said  
2 energy source is a thermal battery and said commutator  
3 is a pulse-amplitude modulated commutator.